

Mineral Industry Surveys

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SILICON IN MARCH 2004

In March 2004, domestic production of silicon ferroalloys plus metal, excluding silvery pig iron, increased by about 11% compared with that in February 2004, according to the U.S. Geological Survey. Domestic shipments of silicon ferroalloys plus metal increased by 17%, while stocks of these materials decreased by 11% compared with those in the previous month. Domestic production and shipments of ferrosilicon and silicon metal during the first quarter of 2004 were 18% and 10% lower, respectively, compared to those during the first quarter of 2003. All domestic data for ferrosilicon have been combined to avoid disclosing company proprietary data.

The ensuing discussion is based on a comparison of the February 2004 trade data, which are included in this report, to those of the prior month, on a gross weight basis. Ferrosilicon exports increased by 15%, owing to a significant increase in the “ferrosilicon, more than 55% silicon” trade category. Silicon metal exports decreased by 20% owing primarily to a significant decrease in the “silicon metal, more than 99.99% silicon” trade category. Ferrosilicon imports increased slightly, and silicon metal imports decreased by 10%. The decrease in silicon metal imports was due primarily to significant decreases in all trade categories.

Update

On April 7, the U.S. International Trade Commission (ITC) announced it would begin trade investigations on silicon metal imports from Brazil (countervailing duty) and South Africa (antidumping) in response to a petition filed on March 31 by Globe Metallurgical Inc. and several unions (U.S. International Trade Commission, 2004a). However, the petition was withdrawn shortly thereafter, and the ITC discontinued the investigations on April 28 (U.S. International Trade

Commission, 2004b). Industry analysts indicated the petition was withdrawn because it did not have the support of the other two U.S. silicon producers, Elkem Metals Co. and Simcala, Inc. (Ryan’s Notes, 2004c; Platts Metals Week, 2004).

Globe moved out of Chapter 11 bankruptcy protection on May 10, after securing a \$16 million loan from Fortis Bank and MI Capital Corp. MI Capital is a member of the Marco International Group, which has a tolling contract for all of Globe’s production (Ryan’s Notes, 2004b). After opting to discontinue its contract for discounted electricity with the New York Power Authority, Globe indicated no immediate plans to restart its ferrosilicon and silicon metal plant in Niagara Falls, NY (Ryan’s Notes, 2004a).

References Cited

- Platts Metals Week, 2004, Globe Metallurgical withdraws silicon dumping petition: Platts Metals Week, v. 75, no. 17, April 26, p. 3.
- Ryan’s Notes, 2004a, Fight over New Zealand Si smelter: Ryan’s Notes, v. 10, no. 12, March 22, p. 3.
- Ryan’s Notes, 2004b, Globe exits Chap. 11: Ryan’s Notes, v. 10, no. 20, May 17, p. 4.
- Ryan’s Notes, 2004c, Globe withdraws its trade action: Ryan’s Notes, v. 10, no. 16, April 19, p. 2.
- U.S. International Trade Commission, 2004a, Silicon metal from Brazil and South Africa—Institution of countervailing duty and antidumping investigations and scheduling of preliminary phase investigations: Federal Register, v. 69, no. 67, April 7, p. 18404-18405.
- U.S. International Trade Commission, 2004b, Silicon metal from Brazil and South Africa—Notice of withdrawal of petition in countervailing duty and antidumping investigations: Federal Register, v. 69, no. 82, April 28, p. 23213.

Prices, cents per pound, silicon content

	<u>50% Ferrosilicon¹</u>	<u>75% Ferrosilicon²</u>	<u>Silicon Metal²</u>
March 4	61.0-65.0	55.00-58.00	72.0-75.0
March 11	61.0-65.0	60.00-62.00	75.0-77.0
March 18	63.0-68.0	60.00-65.00	75.0-77.0
March 25	65.0-67.0	66.00-68.00	75.0-77.0

¹Source: Ryan's Notes, North American transaction price.

²Source: Platts Metals Week, dealer import price.

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2004^{1, 2, 3}

(Metric tons)

Material	Gross production ⁴		Net shipments		Stocks, March 31
	March	Year to date ⁵	March	Year to date ⁵	
Ferrosilicon, all grades ^{6, 7}	14,900	42,400	13,700	35,300	18,300
Silicon metal, excludes semiconductor grades	12,200	34,800	11,600	34,800	3,120

¹Data are rounded to no more than three significant digits.

²Includes U.S. Geological Survey estimates.

³Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

⁴Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

⁵Includes revisions to previous months' data.

⁶Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

⁷Includes miscellaneous silicon alloys.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN FEBRUARY 2004^{1, 2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	446	268	\$366,000	717	430	\$578,000
Mexico	105	63	111,000	204	126	208,000
United Kingdom	2	1	2,690	2	1	2,690
Total	553	332	480,000	923	557	789,000
Other ferrosilicon:						
Canada	228	114	231,000	509	254	533,000
India	(3)	(3)	5,010	(3)	(3)	5,010
Mexico	118	59	95,800	251	125	239,000
Spain	4	2	3,240	4	2	3,240
Total	349	175	335,000	763	381	780,000
Total ferrosilicon	902	507	815,000	1,690	938	1,570,000
Metal:						
More than 99.99% silicon:						
China	94	XX	2,500,000	223	XX	5,860,000
Denmark	10	XX	577,000	19	XX	1,120,000
France	40	XX	935,000	81	XX	1,910,000
Germany	49	XX	1,790,000	110	XX	3,990,000
Italy	9	XX	646,000	23	XX	1,580,000
Japan	190	XX	10,000,000	769	XX	31,900,000
Korea, Republic of	68	XX	2,170,000	118	XX	5,150,000
Malaysia	7	XX	1,060,000	12	XX	1,960,000
Taiwan	22	XX	885,000	35	XX	1,450,000
United Kingdom	11	XX	1,070,000	29	XX	2,550,000
Other (23 countries)	62	XX	1,920,000	78	XX	2,910,000
Total	563	563 ^e	23,600,000	1,500	1,500 ^e	60,400,000
99.00% - 99.99% silicon:						
Australia	3	3	4,020	3	3	4,020
Brazil	20	19	56,700	25	25	68,700
China	2	2	3,440	2	2	3,440
Colombia	--	--	--	85	84	120,000
France	8	8	17,400	8	8	17,400
Italy	4	4	12,700	4	4	12,700
Japan	--	--	--	15	15	44,000
Korea, Republic of	--	--	--	4	4	12,900
Total	37	37	94,200	147	146	283,000

See footnotes at end of table.

TABLE 2--Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN FEBRUARY 2004^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal--Continued:						
Other silicon:						
Canada	35	34	\$41,700	39	37	\$47,700
Germany	--	--	--	4	4	5,000
Japan	22	21	236,000	141	137	393,000
Latvia	81	79	107,000	81	79	107,000
Mexico	32	31	73,100	52	50	178,000
Netherlands	37	35	324,000	158	152	894,000
Norway	--	--	--	14	14	18,600
Taiwan	164	159	216,000	164	159	216,000
United Kingdom	12	12	100,000	12	12	100,000
Other (5 countries)	4	4	19,600	5	4	27,600
Total	386	374	1,120,000	668	648	1,990,000
Total silicon metal	986	974	24,800,000	2,310	2,290	62,600,000

⁶Estimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN FEBRUARY 2004^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
Brazil	19	11	\$20,100	57	35	\$60,200
France	17	10	22,700	17	10	22,700
Total	36	22	42,900	74	45	82,900
55% - 80% silicon, Other:						
Brazil	--	--	--	143	106	99,500
Canada	1,100	836	832,000	2,500	1,870	1,820,000
China	1,620	1,550	1,210,000	15,600	12,100	9,710,000
France	503	328	832,000	575	375	978,000
Iceland	4,300	3,230	2,710,000	4,300	3,230	2,710,000
Kazakhstan	4,000	3,060	2,880,000	4,000	3,060	2,880,000
Norway	956	706	940,000	1,450	1,070	1,580,000
Russia	1,810	1,320	1,090,000	1,810	1,320	1,090,000
South Africa	1,300	991	872,000	1,300	991	872,000
Venezuela	4,510	3,480	3,180,000	7,290	5,620	5,020,000
Other (3 countries)	67	46	174,000	134	94	396,000
Total	20,200	15,500	14,700,000	39,100	29,800	27,200,000
80% - 90% silicon:						
Brazil	5	4	3,230	5	4	3,230
Canada	--	--	--	18	14	9,430
Total	5	4	3,230	23	19	12,700
Magnesium ferrosilicon:						
Argentina	280	134	211,000	420	196	325,000
Brazil	135	61	85,300	399	179	281,000
Canada	98	47	79,300	98	47	79,300
China	42	20	49,100	1,680	761	1,180,000

See footnotes at end of table.

TABLE 3--Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN FEBRUARY 2004^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon--Continued:						
Magnesium ferrosilicon--Continued:						
France	20	10	\$22,100	20	10	\$22,100
India	57	41	71,600	76	54	92,500
Japan	16	7	36,700	31	13	73,000
Netherlands	109	51	84,900	109	51	84,900
Norway	1,250	577	1,010,000	2,160	974	1,730,000
New Zealand	41	19	26,700	41	19	26,700
Other (South Africa)	--	--	--	1	(3)	10,500
Total	2,050	965	1,680,000	5,040	2,300	3,910,000
Other ferrosilicon:						
Brazil	78	23	74,200	186	64	169,000
Canada	717	243	520,000	1,560	482	1,080,000
China	4	2	2,810	64	33	108,000
France	3	2	11,300	3	2	11,300
Ukraine	5	3	4,030	5	3	4,030
Total	808	273	612,000	1,820	583	1,380,000
Total ferrosilicon	23,100	16,800	17,000,000	46,000	32,800	32,500,000
Metal:						
More than 99.99% silicon:						
China	(3)	XX	14,500	(3)	XX	22,300
Denmark	(3)	XX	72,300	(3)	XX	75,300
Germany	29	XX	3,370,000	60	XX	7,760,000
Ireland	--	XX	--	(3)	XX	4,890
Italy	4	XX	636,000	74	XX	2,490,000
Japan	30	XX	1,070,000	45	XX	1,910,000
Korea, Republic of	(3)	XX	29,800	6	XX	87,000
Spain	1	XX	5,860	3	XX	12,000
Taiwan	--	XX	--	8	XX	83,400
Ukraine	--	XX	--	(3)	XX	2,420
Total	64	64 ^e	5,190,000	196	196 ^e	12,400,000
99.00% - 99.99% silicon:						
Australia	243	241	340,000	333	330	438,000
Brazil	4,180	4,150	4,870,000	8,880	8,810	10,300,000
Canada	1,550	1,540	2,070,000	3,330	3,300	4,380,000
France	20	20	26,000	40	40	42,800
Norway	500	497	1,000,000	1,020	1,010	1,980,000
South Africa	1,080	1,070	1,280,000	2,410	2,390	2,800,000
Sweden	--	--	--	10	10	73,600
Total	7,570	7,520	9,580,000	16,000	15,900	20,100,000
Other silicon:						
Belgium	16	2	17,600	16	2	17,600
Brazil	63	62	71,300	677	670	769,000
Canada	445	437	577,000	587	575	766,000
China	180	177	158,000	570	561	545,000
France	192	178	244,000	212	198	261,000
Germany	100	97	443,000	100	97	443,000
Korea, Republic of	10	(3)	11,200	21	(3)	22,800
South Africa	502	490	561,000	1,100	1,080	1,040,000
Ukraine	235	229	254,000	372	364	404,000
United Kingdom	40	39	61,900	58	57	91,800
Other (Japan)	(3)	(3)	2,050	(3)	(3)	9,220
Total	1,780	1,710	2,400,000	3,710	3,600	4,360,000
Total silicon metal	9,420	9,290	17,200,000	19,900	19,700	36,900,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Less than 1/2 unit.

Source: U.S. Census Bureau.